

WHAT IS CLAIMED IS:

1. A drop ejector, comprising:
a flow path in which fluid is pressurized to eject drops from a nozzle opening formed in a substantially planar substrate, and a channel formed in the substrate proximate the nozzle opening, the channel being spaced from the nozzle opening by a distance of about 20 % of a nozzle width or more.
2. The drop ejector of claim 1 wherein the nozzle opening is surrounded by the channel.
3. The drop ejector of claim 2 wherein the channel is in the shape of a circle.
4. The drop ejector of claim 1 wherein the channel extends radially from the nozzle opening.
5. The drop ejector of claim 1 wherein the channel has a width that is about twice the nozzle opening width or less.
6. The drop ejector of claim 1 wherein the channel has a width of about 100 microns or less.
7. The drop ejector of claim 1 wherein a depth of the channel is from about 2 micron to about 50 micron.
8. The drop ejector of claim 1 wherein the substrate is a silicon material.
9. The drop ejector of claim 1 wherein the planar substrate includes a plurality of nozzle openings and channels proximate the nozzle openings.
10. The drop ejector of claim 1 wherein the nozzle opening width is about 200 micron or less.

11. The drop ejector of claim 1 including a piezoelectric actuator.
12. A method of fluid ejection, comprising:
 - providing a drop ejector including a flow path in which fluid is pressurized for ejection through a nozzle opening formed in a substrate, and a channel formed in the substrate proximate the nozzle opening, the channel being spaced from the nozzle opening by a distance of about 20 % of the nozzle width or more;
 - providing a fluid that is wicked by capillary forces into the space defined by said channel, and
 - ejecting said fluid through said nozzle opening by pressurizing said fluid in said flow path.
13. The method of claim 12 wherein the fluid has a surface tension of about 20-50 dynes/cm.
14. The method of claim 12 wherein the fluid has a viscosity of about 1 to 40 centipoise.